

REMARKS

Claims 1-13 and 15-18 remain pending in the application. The inventions set forth by claims 1-13 and 15-18 are alleged not to meet the requirements of 35 U.S.C. §103(a) as being unpatentable over Edens et al (US 6,611,527, "Edens") in view of Trebes, Jr. et al (US 6,317,438, "Trebes"). The applicants respectfully traverse the allegation and respond as follows.

AMENDMENT TO THE CLAIMS

Claim 8 has been amended to set forth an alternative aspect of the invention. This amendment is not narrowing in nature, and is not made in view any prior art reference to be overcome.

CLAIMS 1-13 AND 15-18 MEET THE REQUIREMENTS OF SECTION 103(a)

The issue of patentability raised by the Office action, and which the applicant must overcome, is whether the combination of Edens in view of Trebes renders unpatentable claims 1-13 and 15-18 under 35 U.S.C. § 103(a). The applicants submit that claims 1-13 and 15-18 meet the requirements of 35 U.S.C. § 103(a) and are therefore allowable.

As discussed in the applicants' previous response, to establish a *prima facia* case of obviousness, and hence to find claims 1-13 and 15-18 unpatentable under 35 U.S.C. § 103(a), three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not be based upon applicant's disclosure. MPEP at § 2142.

In determining whether the claims meet the requirements of patentability including § 103(a), the applicants' disclosure is properly relied upon to determine the meaning of terms used in the claims. While doing so, the perspective of the person of ordinary skill in the art must be considered, particularly with respect to claimed

elements that are well known. In such cases, it is not necessary for the applicants to describe those elements in detail, and the element should be considered to include all art-recognized hardware or combination of hardware and software techniques for implementing that element. Furthermore, it is appropriate to give claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997) (emphasis added). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969). See also *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) ("During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow.... The reason is simply that during patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed.... An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process."). See MPEP at § 2106.

With the requirements for patentability in mind, the applicants claim vehicles and methods implemented within a vehicle comprising active networks. The applicants assert that an active network is known to the skilled artisan to include nodes capable of performing custom operations on the messages that pass through the nodes. An active network does not require a central server or computing resources. And, active network nodes are aware of the contents of messages transported and can participate in the processing and modification of the messages while they travel through the network. That is, an active network is a defined physical structure that is unlike other communication structures such as communication busses and/or passive networks. Moreover, the applicants clearly distinguish particular kinds of passive networks, such as bus architectures, in the background portion of the specification. Beginning at page 2, line 3 of the specification, the applicants explain that, in accordance with existing design philosophy, various communication bus structures for interconnecting control elements, sensors, actuators and like structures within vehicle have been used, but that these architectures suffer a number limitations. The applicants further explain, beginning at page 2, line 19 of the specification, that network structures have been incorporated in connection with bus architectures. These passive network structures do not provide sufficient reliability for vehicle

functional requirements such as power train, suspension, airbag systems, and the like, and usage has been limited to applications wherein information technologies are added to the vehicle. Thus, as the applicants have explained, existing architectures have not met the needs of efficient, reliable integration of in-vehicle electronic technologies and plug-and-play upgradeability.

Clear from the foregoing discussion, the applicants have claimed a specific physical structure, namely an active network known to have particular characteristics, within a vehicle. This active network is not a bus architecture and is not a passive network or a combination of a passive network and a bus architecture. In light of the specification, the broadest reasonable interpretation of the term active network does not mean bus structures and/or passive networks. For the claims to be unpatentable, i.e., not to meet the requirements of 35 U.S.C. § 103(a), the prior art must teach or suggest each and every limitation contained in the claims, and particularly, in this case, must teach or suggest a vehicle including an active network. Because the prior art fails to teach or suggest this structure or methods employing such structures, claims 1-13 and 15-18 do meet the requirements of 35 U.S.C. § 103(a) and are patentable.

Cited in the Office action as teaching an "active network" is Edens. However, the statement in the Office action alone is determinative on the issue that Edens does not describe an active network. As noted, an active network does not require a central server or computing resources. At page 3 of the Office action citation is made to col. 31, lines 8-37 describing "a smart CPU based controller is used on the network" to manage FIFO buffering within the network. Such a controller is not necessary in active network architecture. It is clear from a careful reading of Edens that it describes nothing more than a logical ring network, a passive network, and makes no teaching or suggestions whatsoever of an active network.

The Office action suggests the use of the term "active network arm" in Edens is an indication that the network described by Edens is an active network. This misconstrues the use of the term in Edens. Clear from the discussion of how data is communicated within the Edens network (col. 31, 8-37; col. 36, line 54 through col. 55, line 50), "active network arm" refers to the one or more of the multiple network arms active in connecting a device and/or carrying data a given point in time, and particularly at periods of network initialization. That is, the particular network arm

being used. The term is not used to teach or suggest a physical characteristic of the network arm.

Edens further does not teach or suggest data redundancy as claimed in the instant application. Edens teaches that fixed-length frames are divided into two independent streams: a data stream for the distribution of real-time continuous digital media streams; and a system command stream for the distribution of system commands (abstract). Edens does not teach or suggest that data be replicated to provide first and second representations of the data for communication via corresponding communication paths.

Whether or not Trebes teaches first/second communication paths between devices or whether one of ordinary skill in the art would be motivated to combine Edens and Trebes, which the applicants submit there is no suggestion within the references for such motivation to combine, the resulting combination would not render the claimed invention unpatentable. The resulting combination must teach each and every limitation of the claims. From the foregoing discussion, Edens fails to teach several of the claimed limitations, most particularly, Edens fails to teach or suggest an active network or first and second representations of the data. Trebes does not overcome the defects of Edens, and hence the combination of Edens and Trebes at least lacks these limitations. Thus, at least claims 1, 8 and 15 meet the requirements for patentability under 35 U.S.C. § 103(a) over the combination of Edens in view of Trebes. Likewise, claims 2-7, 9-13 and 16-18 respectfully depending from these claims are patentable.

Furthermore, there is no teaching or suggestion within the references as to how the logical ring network described by Edens is to be modified in accordance with the teaching of Trebes, which describes an entirely different, ATM packet network architecture. As described by Edens, important in the operation of the logical ring network is the need to synchronize the devices and network arms so that all devices are guaranteed of receiving a particular audio sample before any device receives the next sample. (col. 31, lines 8-37). The asynchronous transfer mode (ATM) network taught by Trebes is entirely at odds with such a concept as it is well known that the delivery of data packets within an ATM network is not synchronized. One of ordinary skill in the art would have no expectation that a combination of Edens and Trebes would be successful, and thus at least a second requirement to find the pending claims unpatentable under 35 U.S.C. § 103(a) is not met.

CONCLUSION

In view of the above remarks, favorable re-consideration of this application and passage to issuance is respectfully requested. The examiner is invited to contact applicant's undersigned attorney with any questions regarding this response or the application as a whole. If there are any additional fees or refunds required, the Commissioner is directed to charge or debit Deposit Account No. 13-2855.

Respectfully submitted for,
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